

REMARKS

This case has been carefully reviewed and analyzed in view of the Official Action dated April 26, 2004.

The Examiner has rejected claims 1 and 4 under 35 U.S.C. 103(a) as being unpatentable over EP10221176 [hereinafter EP] in view of Zaragoza et al (U.S. 5133606) [hereinafter Zaragoza] and JP06139869A [hereinafter JP].

The Examiner has rejected claims 5, 9-12 under 35 U.S.C. 103(a) as being unpatentable over EP in view of Zaragora. The Examiner has rejected claim 7 under 35 U.S.C. 103(a) as being unpatentable over EP and Zaragoza as applied to claims 5, 9-12 above, and further in view of JP. The Examiner has rejected claim 8 under 35 U.S.C. 103(a) as being unpatentable over EP and Zaragoza as applied to claims 5, 9-12 above, and further in view of Frankel et al (U.S. 4813790) [hereinafter Frankel]. In addition, the Examiner has rejected claim 6 under 35 U.S.C. 103(a) as being unpatentable over EP and Zaragoza as applied to claims 5, 9-12 above, and further in view of Takagi et al (U.S. 4729672). Further, the Examiner has rejected claim 2 under 35 U.S.C. 103(a) as being unpatentable over EP, Zaragoza and JP and as applied to claims 1, 4 above, and further in view of Frankel et al (US 4813790) [hereinafter]. Furthermore, the Examiner has rejected claim 3 under 35 U.S.C. 103(a) as being unpatentable over EP, Zaragoza and JP applied to claims 1, 4 above, and further in view of Takagi. However, it is respectfully requested that these rejections be withdrawn in light of the following reasons.

EP 10221176, the first reference cited by the Examiner, discloses an electronic clinical thermometer which comprises a probe cap 2, a cap 3 covering an aperture of the other end of a sheathing case 1 and engaging with it, an O-ring 4 interposing between a cap 3 and the case 1, and subcase 5 which includes internal components and is inserted in the case 1.

Zaragoza et al, the second reference cited by the Examiner, discloses a clinical thermometer which comprises a housing having a hollow probe extending outwardly therefrom in a distal direction and a temperature sensor means located at the distal end of the probe. The housing holds a visual temperature display and electrical means in electrical communication with the temperature sensing means for converting temperature measured by the temperature sensing means into a readout on the display. A resilient soft cover covers the probe and a portion of the housing to form a gripping surface for the user while allowing visualization of the display. The resilient cover is softer than the probe.

JP 06139869A, the third reference cited by the Examiner, discloses a push button switch for operation panel wherein a circular arc-shaped recess 41 toward the inside and partition sections 42 between adjacent buttons 7 are provided around the push button 7 of an operation panel, and a recess 7a matching with a human finger 11 is formed on the push button 7, and the push button 7 is arranged to be sunk from the face of the panel 4.

Frankel et al, the fourth reference cited by the Examiner, discloses a thermometer for orally measuring the temperature of a living being which comprises a mouthpiece for insertion into the mouth of a living being. A temperature sensitive element is on the mouthpiece. There is at least one raised protuberance on the surface of the mouthpiece for engagement with the mouth of the living being during use of the thermometer to inhibit the thermometer from sliding out of the mouth. A visual temperature display is associated with the temperature sensitive element for indicating the temperature being measured.

Takagi et al, the fifth reference cited by the Examiner, discloses an electronic clinical thermometer which includes electronic circuitry and a battery housed in an

elongate casing having at one end an extended, slender tip provided with a temperature sensing unit covered by a metal cap. The distal end of the slender tip has a plurality of annular ribs around its outer periphery, the annular ribs being covered by the metal cap. The annular ribs and the inner surface of the metal cap define air-filled chambers which prevent liquids from invading the interior of the casing.

The present invention resides in an electronic thermometer with a flexible structure which is easy to manufacture and comparatively low in cost. The thermometer has a flexible covering extending from the measuring end to the tail end and a waterproof push button integral with the flexible covering. In a consequence, the flexible portion of the thermometer is formed by one injection molding operation, while the rigid portion of the thermometer is formed by another injection molding operation, so that the housing of the thermometer can be formed by two injection molding operations. According to the conventional clinical thermometer with flexible structure is made by forming a rigid portion by an injection molding operation and then covering the rigid portion with flexible material by another injection molding operation to obtain a flexible measuring end. The present invention is characterized in that the waterproof push button is formed at the same time when the flexible covering is formed by injection molding, thereby eliminating the assembly of the waterproof push button. None of the cited references discloses this structure and only each of the cited references discloses a portion of the present invention. For example, the EP 10221176 discloses a non-flexible thermometer and the push button is an independent member which is made of different material from the body portion and no similar connection structure in the present invention has been shown.

The waterproof push button of the present invention is formed with an annular

groove to facilitate its deformation, whereas none of the cited references disclose similar structure.

The casing of the present invention is made of transparent material and the flexible covering of the present invention has an opening for viewing a liquid crystal display, so that it is unnecessary to assemble a transparent window and key in manufacture thus simplifying the manufacturing process and lowering the cost and providing a waterproof capability. None of the cited references disclose or teach similar structure.

The conventional thermometer generally has a recess between the tail portion and the cover for receiving an O-ring urged by a groove of the cover so as to provide waterproof ability (see EP 10221176). The tail end of flexible covering of the present invention is integrally formed with a sealing flange and a locating groove which are engaged to provide watertight engagement thereby eliminating the use of an O-ring. None of the cited references discloses similar structure.

A second preferred embodiment of the present invention has a transparent casing, a flexible covering with an opening for viewing the display, panels force-fitted in the casing to hold the push button in position and covering the transparent portion except the window. None of the cited references teach or suggest similar structure.

Accordingly, even if the disclosures of the cited references are combined together, the combined disclosure still fails to teach each and every element of the claimed invention and so the subject matter sought to be patented as a whole would not have been obvious to one of ordinary skill in the art.

The applicant has reviewed the prior art as cited by the Examiner but not used in the rejection and believes that the new claims clearly and distinctly patentably define over such prior art.

It is now believed that the subject Patent Application has been placed in condition of allowance, and such action is respectfully requested.

Respectfully submitted,



Signature

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